



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,345	02/12/2004	Wesley Wayne McConnell	79696	4911
22242	7590	02/23/2006	EXAMINER	
<b>FITCH EVEN TABIN AND FLANNERY</b> 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406				ROBERTSON, JEFFREY
		ART UNIT		PAPER NUMBER
		1712		

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/777,345	MCCONNELL ET AL
	Examiner Jeffrey B. Robertson	Art Unit 1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 February 2004.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0804.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-4, 6, and 12-22 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for reactions of maleic anhydride with hexachlorocyclopentadiene in a ratio of at least 1.1:1, does not reasonably provide enablement for mixture of maleic anhydride and chlorendic anhydride in a ratio of at least 1.1:1. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Regarding the instant claims, especially claims 1, 2, 6, 13, 19, and 20, it is noted that applicant is claiming a mixture of maleic anhydride and chlorendic anhydride in a ratio of at least 1.1:1. The examiner finds these claims to be outside the scope of enablement set forth in the specification. Specifically, applicant has set forth a method where maleic anhydride is reacted with hexachlorocyclopentadiene to form chlorendic anhydride, where the ratio of reactants, maleic anhydride and hexachlorocyclopentadiene, appears to be the same as that claimed in the resulting mixture of maleic anhydride and chlorendic anhydride. The examiner does not understand how this is possible since it appears that maleic anhydride is consumed in the reaction. In order for this solid mixture to exist, it appears that a very large excess

of maleic anhydride would have to be employed and only partially reacted with hexachlorocyclopentadiene, which does not appear to be contemplated in the specification.

For claim 12, the claim sets forth the addition of an excess of hexachlorocyclopentadiene over the amount of maleic anhydride employed. This is outside the scope of enablement provided by the specification. The specification requires there to be an excess of maleic anhydride to hexachlorocyclopentadiene. For claims 12 and 13, in addition to the above rejection, it is not known how there would be unreacted maleic anhydride present if an excess of hexachlorocyclopentadiene is employed.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 5, and 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Zimberg et al. (U.S. Patent No. 3,787,369).

For claims 5, 7, 8, and 10, Zimberg teaches a process for forming chlorendic anhydride that involves addition of an excess of maleic anhydride to hexachlorocyclopentadiene, where the ratio is at least 1.1. See col. 3, lines 50-55 and Example 1. Zimberg teaches the addition of molten maleic anhydride over a period of time to hexachlorocyclopentadiene maintained at 130° C. The mixture was maintained

at 144° C for four hours. In col. 4, lines 20-24, Zimberg teaches that the material can be cooled and solidified. For claim 9, Zimberg teaches that the reaction is carried out in air, which is 21 % oxygen. Col. 3, lines 23-29. For claim 11, in col. 4, lines 30-57, Zimberg teaches the combination of the resulting adduct with a dihydric alcohol.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It is noted that for claim 12, Rushton et al. (U.S. Patent No. 3,772,406) is the closest prior art. However, the reference cannot be applied because the ratio in claim 12 is reversed. Kleiman (U.S. Patent No. 2,598,562), Baranauckas et al. (U.S. Patent No. 2,903,463), Zimmer et al. (U.S. Patent No. 3,214,444), and GB 2,061,300 are cited for general interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey B. Robertson  
Primary Examiner  
Art Unit 1712

JBR